(e) The printing die must either conform in design to one already in use or be approved by the Postal Service. The die must include the serial number of the meter and identification of the manufacturer, and the die must be so constructed or shielded that it is not practically possible without proper registration in the ascending and descending register to obtain imprints fraudulently. The die must be attached to the meter in a manner (such as with breakoff screws) that it is not practicable to remove or replace the die fraudulently.

(f) The meter die must include a postmark to print the name of the city and state from which mail is dispatched and the date of mailing, except as specified by the Postal Service. Information that must appear in the meter postmark and the location of that postmark must be as specified by the Postal Service.

(g) A meter may be designed to print a meter slogan or ad plate to the left of, and next to, the postmark. The size and position of a meter slogan or ad plate must not interfere with or obscure the meter stamp or postmark, and it must be possible to install the plate easily without exposing the meter stamp die. Plates must be made of suitable, durable material that does not soften or disintegrate while in use. Plates must be well-fitted and so securely fastened to the printing mechanism that they do not become loose or detached or otherwise interfere with proper operation of a meter.

(h) The entire meter must be of sufficiently solid, substantial, and dependable construction that protects the Postal Service amply against loss of revenue from fraud, manipulation, misoperation, or breakdown.

(i) In addition to the features and safeguards above, electronic meters must:

(1) Have either nonvolatile ascending and descending registers or a solid-state memory that stores the data for the ascending and descending registers. Solid-state memories that rely on applied voltage for memory retention must be powered by batteries with a minimum support life of 5 years from the date of battery renewal with no external power applied and with sufficient redundancy to be self-checking.

(2) Be able to display the amounts in both the ascending and the descending registers (not necessarily at the same time).

(3) Be able to display, free from accidental changes, the next amount of postage to be printed.

(4) Be resettable by Postal Service employees, preferably without customized equipment.

(5) Contain a fault-detection device for computational security that automatically locks out the meter and prevents printing of additional postage in the event of malfunction.

(6) Meet Postal Service test specifications in United States Postal Service Specification, Postage Meters, Electronic, Postal Service-M–942 (RDC). Persons wanting to manufacture electronic meters may obtain a copy of this Postal Service test specification from Postal Service Headquarters.

(j) Auxiliary equipment required for the operation of the meters must be part of the final production models submitted for Postal Service approval. Failure of the auxiliary equipment, which could cause malfunction in meter operation, is considered the same as a meter failure.

§ 501.7 Test plans.

To receive Postal Service approval, a postage meter must be tested. Manufacturers of electronic meters must submit a detailed test plan to the Postal Service for approval at least 60 days before conducting the tests. The test plan must include tests that, if passed by a meter, prove compliance by the meter with all postal requirements. The test plan must list the parameters to be tested, test equipment, procedures, test sample sizes, and test data formats. Also, the plan must include detailed descriptions, specifications, design drawings, schematic diagrams, and explanations of the purposes of all special test equipment and nonstandard or noncommercial instrumentation.